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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,727	09/09/2003	Jeyhan Karaoguz	14168US02	2798

23446 7590 07/07/2010

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EXAMINER	
PARK, JUNG H	

ART UNIT	PAPER NUMBER
2465	

MAIL DATE	DELIVERY MODE
07/07/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/658,727	KARAOGUZ ET AL.	
	Examiner	Art Unit	
	JUNG PARK	2465	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 April 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *04/29/10*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Remark

1. This communication is considered fully responsive to the amendment filed on 04/05/10.

a. Independent claims 1, 11, & 21 and dependent claims 22-30 have been amended.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 10, 11, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (US 2004/0039817, “Lee”) in view of Fantaske (US 2002/0045435, "Fantaske").

Regarding claim 1, Lee discloses a method for providing communication in a multi-band multi-protocol hybrid wired/wireless network, the method comprising:

- determining a protocol (selecting one of 802.11 family protocols, see 110-114 fig.1 and ¶.29) associated with a communication signal for an access point (AP) (signal associated with AP, see ¶.29);

- allocating a processor within the access point (inherently allocating/assigning a processor within the selected AP for communication, see 138 fig.1 and ¶.59); and

- processing the communication signal by the allocated processor (process the communication signal by the allocated processor within the selected AP, see 138 fig.1 and ¶.59).

Lee discloses the method of determining one of the best access protocol at mobile station, but silent on the amended claim "determining by an access point."

However, Fantaske discloses an access point server provided with protocols comprising an IEEE 802.3 protocol and an IEEE 802.11 protocol layer (see 110 fig.1 and ¶.34).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply an access point server providing a plurality of protocols as taught by Fantaske into the system of Lee, so that it provides a way of selecting one of protocols in the access point based on the type of receiving and/or transmitting protocols for the purpose of having standard protocol compliance for communication in hybrid wired and wireless network (fig.1 and ¶.34-35).

Regarding claim 10, Lee discloses, “wherein the protocol is one of an 802.11a, 802.11b, 802.11g and Bluetooth protocol (¶.11).”

Regarding claim 11, it is a computer-readable claim corresponding to the method claim 1, except the limitation of “computer-readable medium (inherent to have a medium to operate the flowchart in fig.1 and other algorithms, see ¶.7)” and is therefore rejected for the similar reasons set forth in the rejection of claim 1.

Regarding claim 20, it is a claim corresponding to claim 10 and is therefore rejected for the similar reasons set forth in the rejection of the claim.

4. Claims 2-9, 12-19, and 21-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Fantaske and further in view of Schmidt (US 7,058,040, "Schmidt").

Regarding claim 2, Lee and Fantaske are silent on "selecting the allocated processor from a pool of available processors for the processing of the communication signal." However, Schmidt discloses a pool of available processors such as MIPS processor and/or one or more digital signal processors (DSPs) which are configured to operate optimally on specific problems (see col.5, ln.51-59). Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply the method of allocating/assigning a specific processor among the processors as taught by Schmidt into the system of Lee and Fantaske. The motivation is to operate on specific problem optimally and efficiently. For example, the bank of DSPs can be optimized to handle discrete cosine transforms (Schmidt, see col.5, lines 59-66), whereas one of the processors can be used to handle other specific operation such as operating for one of the selected IEEE 802.11 protocols.

Regarding claim 3, Lee and Fantaske are silent on "the allocating further comprises updating the processor to be capable of the processing of the communication signal." However, Schmidt discloses the method of selecting one of the processors based on the specific task (see col.5, ln.51-59). Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply the method of allocating/assigning a specific processor among the processors based on newly selected protocol, that is, selecting a new processor for a newly selected protocol as taught by

Schmidt into the system of Lee and Fantaske. The motivation is to operate optimally on specific problem. For example, the bank of DSPs can be optimized to handle discrete cosine transforms (Schmidt, see col.5, lines 59-66), whereas one of the processors can be used to handle other specific operation task such as operating for a newly selected protocol among IEEE 802.11 protocols.

Regarding claim 4, Lee and Fantaske are silent on “updating further comprises downloading protocol code compatible with the determined protocol to the processor.” However, in a system of Schmidt, it is inherent to down load protocol code compatible with the determined protocol to access one of 802.11 protocols, otherwise, it is not operable. Therefore, this claim is rejected with the similar reasons and motivation set forth in the rejection of claim.

Regarding claim 5, Lee and Fantaske are silent on “storing the compatible protocol code in a memory.” However, in a system of Schmidt it is inherent to save the protocol code in a memory, otherwise, it is not operable. Therefore, this claim is rejected with the similar reasons and motivation set forth in the rejection of claim.

Regarding claim 6, Lee and Fantaske are silent on “the downloading further comprises retrieving the compatible protocol code from a portion of the memory.” However, there are a plurality of memory/buffers in a system of Schmidt. Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to retrieve/read protocol code from a portion of the memory in order to get code for operating for a specific task.

Regarding claim 7, Lee and Fantaske are silent on “associating the determined protocol code with the portion of the memory.” Therefore, this claim is rejected with the similar reasons and motivation set forth in the rejection of claim 6.

Regarding claim 8, Lee and Fantaske are silent on the following cited limitations, however, Schmidt discloses the cited limitation “tuning at least one transceiver device to at least one transceiver device to at least one of a receive and a transmit frequency associated with the communication signal (col.4, ln.4-16).” Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply a transceiver taught by Schmidt into the system of Lee in order to tune a transmit frequency for better/optimum performance.

Regarding claim 9, Lee and Fantaske are silent on the cited limitation, however, Schmidt discloses, “wherein the processor is a digital signal processor (DSP) (153 fig.2A and col.5, ln.51-56).” Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply a DSP taught by Schmidt into the system of Lee in order to have embedded functions in the DSP since DSP is a special-purpose CPU used for digital signal processing applications to provide ultra-fast instruction sequences.

Regarding claims 12-19, they are claims corresponding to claims 2-9, respectively and are therefore rejected for the similar reasons set forth in the rejection of the claims.

Regarding claim 21, it is a system claim corresponding to the method claim 1 and 2 and is therefore rejected for the similar reasons set forth in the rejection of the claims 1 and 2.

Regarding claims 22-30, they are claims corresponding to claims 2-10, respectively and are therefore rejected for the similar reasons set forth in the rejection of the claims.

Regarding claim 31, Lee discloses, “the at least one integrated transceiver utilizes a single protocol stack for processing the communication signal for the 802.11a, 802.11b, and 802.11g protocols (see ¶.11), but Lee and Fantaske lack what Schmidt discloses, “Bluetooth protocol (col.1, ln.31).” Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include Bluetooth protocol taught by Schmidt into the stack of Lee and Fantaske in order to provide more options clients looking Bluetooth technology which is available at the time of invention.

Response to Arguments

5. Applicant's arguments with respect to the amended claim have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's arguments filed have been fully considered but they are not persuasive.

At page 15, applicant argues that Lee does not overcome "allocating a processor within the AP ...compatible to the determined protocol."

As reply in the Office Action filed on 01/05/2010, Lee discloses the method of selecting AP based on the determined protocol as shown in Figure 1 and described paragraph [0059]. An access point (AP) is a land station or a mobile station carrying on a service for mobile stations and/or communicating with other APs. Without allocating a processor within the access point, the selected AP is not operable with mobile stations because a processor within AP communicates with a processor within mobile or hand-held phone. For example, in a wireless telephone system, the signals from one or more mobile telephones in an area are received at a nearby base station, which then connects the call to the land-line network. A processor in computer network is commonly use to refer to any hardware that is used for information processing, but not limited to hardware. Therefore, the selected AP/base station based on the determined protocol inherently includes a processor for communication based on one of the selected IEEE 802.11 protocols.

For the amended claim limitations, there should be at least one processor to execute one of the selected protocols in the access point, that is, the processor needs to have protocol compliance in order to implement the selected protocol, otherwise, it is inoperable if there is no protocol compliance. Therefore, the examiner respectively disagrees.

At page 18, with respect to claim 2, applicant argues that Schmidt does not disclose or suggest that the bank of DSPs is for use within an AP.

As reply in the advisor action filed on 01/21/2009, Schmidt discloses a pool of available processors such as MIPS processor and/or one or more digital signal processors (DSPs) which are configured to operate optimally on specific problems (see

col.5, ln.51-59). It is not necessary that the DSPs be for use within an AP in the system of Schmidt because one or more digital signal processors (DSPs) is used to operate optimally on specific problems as described in col.5, lns.51-59 and the bank of DSPs can be optimized to handle discrete cosine transforms as described in col.5, lines 59-66, whereas one of the processors can be used to handle other specific operation such as operating for one of the selected IEEE 802.11 protocols. Therefore, multiple DSPs disclosed by Schmidt can be applied to the specific protocols in system of Fantaske because DSP is configured to operate optimally on specific problems/tasks as suggested by Schmidt. Further, ordinary person in the art know that DSP is designed for containing architectural optimizations to speed up processing and these optimizations are also important to lower costs, heat-emission and power-consumption. Therefore, the examiner respectively disagrees.

Please further see detailed responses to the same arguments in the prosecusion history.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung Park whose telephone number is 571-272-8565. The examiner can normally be reached on Mon-Fri during 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Jung Park/

Examiner, Art Unit 2465

/Jayanti K. Patel/

Supervisory Patent Examiner, Art Unit 2465